

Remarks

Reconsideration of this Application is respectfully requested.

The specification has been amended in order to correct typographical errors.

Claims 1-28 are pending in the application, with claims 1, 13, and 23 being the independent claims. Claims 1, 13, and 23 are sought to be amended in a broadening manner. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 112

On page two of the Office Action, claims 10, 12, 20, and 22 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully traverse the rejection and request that it be withdrawn.

Support for claims 10, 12, 20, and 22 may be found at least in paragraph 0081 of the specification. For example, paragraph 0081 recites in part, "[i]n step 13, beam pattern shape can be adjusted. In step 14, beam alignment can be adjusted. In step 15, beam magnification can be adjusted." Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 10, 12, 20, and 22.

Rejections under 35 U.S.C. § 102

On page two of the Office Action, claims 1-5, 9, 13-16, 19, and 23-28 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.K. Patent Application No. 2321316 to Hashimoto (hereinafter Hashimoto). Applicants respectfully traverse the rejection and request that it be withdrawn.

Technical differences exist between Hashimoto and claim 1. Hashimoto does not teach or suggest "an adjusting system that adjusts the *spatial characteristics* of the target portion relative to the substrate support to compensate for the calculated dimensional response," as recited in claim 1. Hashimoto discloses a correction system whereby:

a target substrate temperature T2 is determined. Let us consider, for example, that the temperature of the semiconductor substrate 35 is 23 C, the design distance between alignment marks is 100mm, and the error between the two alignment marks is -0.5 um (the board has contracted with respect to the design values). Using equations (1) and (2), the target substrate temperature T2 can be calculated as about 24.92.

Page 18, lines 10-18. Hashimoto further states, "[w]hen the target substrate temperature T2 has been determined . . . the temperature of the semiconductor substrate is *adjusted* by the temperature regulating mechanism." Page 18, lines 21-25. Accordingly, Hashimoto does not teach or suggest "an adjusting system that adjusts the *spatial characteristics* of the target portion," as recited in claim 1. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claim 1.

Furthermore, independent claim 13 is also patentable over Hashimoto for at least the reasons provided above.

Claims 2-5 and 9 depend from claim 1. Claims 14-16 and 19 depend from claim 13. These dependent claims are thus patentable over Hashimoto for at least

the reasons provided above, and further view of their own features. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 2-5, 9, 13-16, and 19.

Technical differences exist between Hashimoto and claim 23. Hashimoto does not teach or suggest "distributing the alignment features across the surface of the substrate, such that their spatial distribution is predetermined assuming a predetermined substrate temperature" and "measuring a temperature of the substrate," as recited in claim 23. Hashimoto discloses a method where the initial temperature (T1) and the initial distance between alignment marks (D1) are known, and a second temperature (T2) is *derived* by again measuring the distance between alignment marks (D2) at a later time. Accordingly, Hashimoto fails to teach or suggest the invention recited by claim 23. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claim 23.

Claims 24-28 depend from claim 23 and are thus patentable over Hashimoto for at least the reasons provided above, and further view of their own features. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 23-28.

On page three of the Office Action, claims 1, 11, 13, 19, 21, and 23-28 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,424,879 to Chilese *et al.* (hereinafter Chilese). Applicants respectfully traverse the rejection and request that it be withdrawn.

Chilese does not teach or suggest each and every feature of claim 1. For example, Chilese does not disclose "a patterning system that imparts the beam with a

pattern in its cross-section," as recited in claim 1. Accordingly, Chilese fails to teach each and every feature of claim 1. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claim 1.

Furthermore, independent claim 13 is also patentable over Chilese for at least the reasons provided above. Claims 11, 19, and 21 depend from claims 1 and 13 and are thus patentable over Chilese for at least the reasons provided above, and further view of their own features. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 11, 13, 19, and 21.

Technical differences exist between Chilese and claim 23. Chilese does not teach or suggest "distributing the alignment features across the surface of the substrate, such that their spatial distribution is predetermined assuming a predetermined substrate temperature," as recited in claim 23. Nowhere in Chilese is it disclosed the use of alignment marks. Accordingly, claim 23 is patentable over Chilese.

Claims 24-28 depend from claim 23 and are thus patentable over Chilese for at least the reasons provided above, and further view of their own features. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 23-28.

Rejections under 35 U.S.C. § 103

On page four of the Office Action, claims 6-8, 17, and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashimoto in view of U.S. Patent Publication No. 2004/0012404 to Feder *et al.* (hereinafter Feder). Applicants respectfully traverse the rejection and request that it be withdrawn.

Claims 6-8, 17, and 18 depend from claims 1 and 13. The disclosure of Feder adds nothing to the disclosure of Hashimoto to overcome the deficiencies of the latter with respect to claims 1 and 13. Claims 6-8, 17, and 18 are therefore patentable over Hashimoto and Feder, alone or in combination, for at least the reasons presented above. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 6-8, 17, and 18.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Donald J. Featherstone
Attorney for Applicants
Registration No. 33,876

Date: January 11, 2006

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

DJF/YAT/jmh
481864_1.doc